



TFW 1641

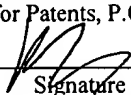
ATTORNEY'S DOCKET NO.: 2002850-0015

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Jain, *et al* Examiner: Do, P. T.
Serial No.: 09/923,752 Art Unit: 1641
Filed: June 27, 2002
Title: DEVICES AND METHODS TO FORM A RANDOMLY ORDERED ARRAY
OF MAGNETIC BEADS AND USES THEREOF

Mail Stop: Amendment
Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

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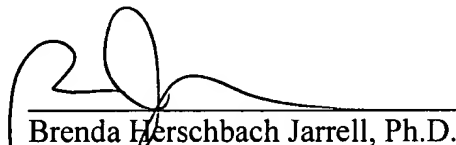
Enclosed **for filing** in the above-referenced patent application, please find the following documents:

1. Response to Restriction Requirement mailed September 11, 2006 (6 pp); and
2. Return-Receipt Postcard.

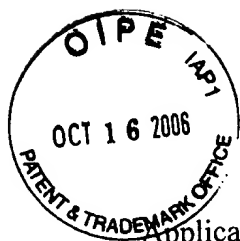
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Respectfully Submitted,
CHOATE, HALL & STEWART LLP

Date: October 11, 2006


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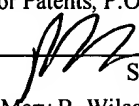
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RESPONSE TO RESTRICTION REQUIREMENT

In response to the Restriction Requirement mailed September 11, 2006, Applicants provisionally elect Group I. Applicants traverse the restriction requirement and respectfully request reconsideration and withdrawal thereof. As set forth in MPEP § 803.02, the claims of an application may properly be required to be restricted to one of two or more claimed inventions only if (i) the inventions are either independent or distinct as claimed; and (ii) there would be a serious burden on the examiner if restriction is not required (see MPEP § 803.02 and § 808.02). For each of the following reasons, Applicants respectfully submit that the Examiner has not established either that the inventions are independent or distinct or that there would be a serious burden if restriction is not required.

Firstly, Applicants respectfully submit that the Examiner has not established that the inventions are independent, i.e., unrelated. "Two or more inventions are related (i.e., not independent) if they are disclosed as connected in at least one of design (e.g., structure or method of manufacture), operation (e.g., function or method of use), or effect." (MPEP § 802.01). Thus in order to show that inventions are unrelated (i.e., independent), the Examiner must show that "they are unconnected in design, operation, *and* effect." (MPEP § 806.06, emphasis added). The standard is not whether the inventions are disclosed as *identical*, as the Examiner seems to suggest, but rather whether they are disclosed as *connected*. Applicants submit that inventions need not be described in identical language in order to be "connected". Claims 1, 5, 59, 116, 123,

and 124 recite a device comprising a substrate comprising a plurality of magnetic regions...wherein the magnetic regions produce a plurality of localized magnetic fields when magnetized...(and wherein) the localized magnetic fields are sufficient to trap a magnetic particle. The Examiner fails to explain how the recitation of an “upper surface” vs “surface”, or “magnetic regions projecting above the surface”, or “magnetic regions that are not rectangular”, or the presence of photodetectors or channel as additional element(s) of the device establishes that the inventions are not connected in design, e.g., structure or method of manufacture, given their common features recited above. Furthermore, even if the Examiner had established that the inventions are not connected in design, the Examiner has not shown that they are unconnected in operation and effect as would be required for them to be unrelated. All of the claimed devices are used to form an array of magnetic particles by producing localized magnetic fields that trap magnetic particles. Thus Applicants submit that the Examiner has failed to show that the devices as claimed are not connected in operation (e.g., function, method of use) or effect.

Secondly, Applicants submit that even if the Examiner had established that the inventions are unrelated, the Examiner has failed to show that there would be a serious burden on the Examiner if restriction is not required. In order to establish the existence of a serious burden the Examiner “must show by *appropriate explanation* one of the following: (A) Separate classification thereof; (B) A separate status in the art when they are classifiable together; or (C) A different field of search.” (MPEP § 808.02, emphasis added). Applicants respectfully submit that, for each of the following reasons, the Examiner’s classification of the inventions recited in the claims of Groups I-VI is arbitrary and at least partly incorrect, and no appropriate explanation thereof has been provided.

Applicants firstly submit that the Examiner’s classification of the device of new Groups II and III into a different class from the device of Group I is arbitrary, and the Examiner has provided no appropriate explanation thereof. The Examiner places claims 1-4, 7-58, 113-115, 119, and 120 into class 204, “chemistry: electrical and wave energy”, subclass 182.8 (Applicants have been unable to identify 182.8). The Examiner places claims 5 and 7-9 into class (422, “chemical apparatus and process disinfecting, deodorizing, preserving or sterilizing”), subclass (50, analyzer, structured indicator, or manipulative laboratory device). The alleged distinction between Groups I and II is that the device of Group II has an “upper surface”. Applicants draw the attention of the Examiner to the fact that the claims of Group I recite a “surface”. The Examiner

has not provided an appropriate explanation of (i) why the recitation of “upper surface” vs “surface” justifies separate classification or (ii) why the recitation of “upper surface” vs “surface” merits classification of the device of claims 5 and 7-9 into class 422 specifically. If the restriction requirement is maintained, Applicants are entitled to such explanations.

The Examiner has placed claims 59-67, 113-115, and 125 (Group III), into class 428 (“stock material or miscellaneous articles”), subclass 65.3. Visiting the USPTO website Manual of Patent Classification at <http://www.uspto.gov/web/patents/classification/uspc428/sched428.htm#C428S065300> and searching for 65.3 reveals that this subclass corresponded to FOR 123 but has now been abolished. Applicants request clarification of the classification of claims 59-67, 113-115, and 125 into a subclass that appears to have been abolished and submit that such classification is unlikely to be correct. Furthermore, the description of FOR 123 is: “Magnetic recording medium or carrier: Foreign art collection wherein the recording medium or carrier contains magnetizable material in the form of particles, film, coating, layer, or impregnant which is intended for the storage of more than a single bit of information to be read by a magnetic head.” Even assuming that 428/65.3 existed and was substantially similar to FOR 123, Applicants submit that (i) the invention of claims 59-67, 113-115, and 125 is a device intended for forming an array of magnetic particles, whereas the definition of FOR 123 recites a device “intended for the storage of more than a single bit of information to be read by a magnetic head”; and (ii) the Examiner has failed to explain why the presence of magnetic regions projecting above the surface of the substrate merits classification of the device into 428/65.3 rather than into class 204 or class 422 or, conversely, why the invention of Groups I and II does not belong in 428/65.3. Why, for example, does the recitation of magnetic regions projecting above the surface suggest that the device of claim 59 is a “stock material or miscellaneous article” rather than a “chemical apparatus”? Applicants note that claim 7 recites a device, “wherein the magnetic regions project above the surface of the substrate” but claim 7 has been placed into Group II rather than Group III. In summary, Applicants submit that the Examiner’s placement of claims 59-67, 113-115, and 125 into a separate class and subclass from the claims of Groups I and II is in error on multiple grounds and respectfully request that these claims be considered together.

The Examiner places claims 116-118, 121, and 122 into Group IV and classifies them into class 422, subclass 50. The alleged reason for placing claims 116-118, 121, and 122 into a

different group from the claims of Groups I and III is that the device of claims 116-118, 121, and 122 has magnetic regions which are not rectangular. The Examiner has failed to explain why the non-rectangular shape of the magnetic regions merits placement into a different class from the invention of Groups I and III. Applicants cannot find anything in the description of any of the relevant classes that relates to the shape of magnetic regions. Applicants further note that the device of Baglin, which has magnetic regions that are clearly not rectangular, is classified into class 428, not class 422. Thus it would appear that the shape of the magnetic regions is not sufficient in and of itself to merit classification of a device into class 422, and the Examiner has provided no other rationale for the classification. In summary, Applicants submit that the Examiner's placement of the claims of Group IV into class 422, separate from the device of Groups I and III, should be reconsidered for multiple reasons, and the restriction withdrawn.

The Examiner places claim 123 into class 356 (optics: measuring and testing), subclass 440 (with significant sample holder or supply). Applicants submit that the Examiner has made this classification based solely on one element of the claim, i.e., the photodetectors located in proximity to locations for trapping the magnetic particles, while ignoring the fact that claim 123, like the other pending claims, is drawn to a device for forming an array of magnetic particles, the device comprising a substrate comprising a plurality of magnetic regions wherein the magnetic regions produce a plurality of localized magnetic fields when magnetized...(and wherein) the localized magnetic fields are sufficient to trap a magnetic particle. Applicants submit that the Examiner has not provided an appropriate explanation of why the separate grouping and separate classification of the device of claim 123 are appropriate and respectfully request that claim 123 be examined together with the other pending claims drawn to devices for forming an array of magnetic particles rather than placed into a separate group.

The Examiner places claim 124 into class 422, subclass 186 (with means applying electromagnetic wave energy or corpuscular radiation to reactants for initiating or perfecting chemical reaction). Like the other claims, claim 124 is drawn to a device for forming an array of magnetic particles, the device comprising: a substrate comprising a plurality of magnetic regions, wherein the magnetic regions produce a plurality of localized magnetic fields when magnetized, and wherein the localized magnetic fields are sufficient to trap a magnetic particle. The alleged distinction between the device of claim 124 and the devices of the other claims is that the device of claim 124 comprises a channel. The Examiner has failed to provide an appropriate explanation

of why the presence of the channel justifies placing the device of claim 124 into subclass 186 as opposed, for example, to subclass 50. As explained in the specification, channel(s) allow the introduction and/or removal of particles, samples, and/or reagents to the surface of the device (see, e.g., paragraphs 136-137). The Examiner has not explained the relevance of the channel to the specific description of subclass 186. Applicants submit that the Examiner has not provided an appropriate explanation of why either separate grouping or separate classification of the device of claim 124 is appropriate and respectfully request that claim 124 be examined together with the other pending claims drawn to a device for forming an array of magnetic particles.


In summary, Applicants submit that the Examiner has not shown that there would be an undue burden in searching all the claims as a single group. The Examiner has not provided an appropriate explanation for the specific classifications that have been made in this restriction requirement and has not provided an appropriate explanation as to why various claims have been placed into separate classes and subclasses. The Examiner has therefore not established that the claims should be separately classified and has not provided any additional basis to suggest that the claims have acquired a separate status in the art or that they require a different field of search.

In conclusion, Applicants submit that the Examiner has not shown that the claims are unrelated and has not demonstrated the existence of an undue burden associated with searching all the claims in one application. Instead, it would be an undue burden to require Applicants to pursue their claims to a device for forming an array of magnetic particles in six separate patent applications. Applicants earnestly request that the Examiner reconsider and withdraw the present restriction requirement and consider all the pending claims as a single group.

Applicants submit that the instant claims are in condition for allowance and respectfully request a Notice to that effect.

It is believed that no fee is due with this response. However, please charge any fees associated with this filing, or apply any credits, to our Deposit Account No. 03-1721.

Respectfully submitted,



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Date: October 11, 2006

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